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THE FARMER.

SATURDAY, MARCH 23. 1833.

"GATHER THE CRUMS."

I. RESULT OF FEEDING UPON TURNEPS AND STRAW.

Adam Ferguson gives us, in the Quarterly Journal of Agriculture, the result of feeding two steers twenty-five weeks, upon *turneps and straw*, the turneps half Swedes, or ruta baga. The steers were half and two-thirds short horned blood. No. 1 gained 406 lbs., No. 2 gained 336 lbs. The daily consumption of turneps was about 200 lbs. per day to each animal. I once fed four bullocks about seventy days upon ruta baga, at the rate of two bushels each per day. They ate hardly any thing else, even refusing oil cake. They required no drink. The turneps thus fed produced me about $75.

II. POISONING OF VEGETABLES.

M. Marcet, of Geneva, has given us the result of his experiments with poisons upon plants. A vessel containing plants of the bean, with five or six leaves each, were watered with two ounces of water, containing twelve grains of oxyde of arsenic in solution In thirty-six hours the plants faded, drooped and turned yellow. Attempts to restore them by abundant waterings failed. A branch of the rose, with an expanding flower, placed in a like compound, was completely withered and dead in five days, while a like one in pure water continued fresh, and the flower fully expanded. Arsenic was next introduced into a slit made in the bark of the lilac. In a short time the leaves withered and fell, and the tree died, even a branch that came out below the incision. The vegetable poisons were then tried. Plants would not exist in a healthy state, when watered with water containing opium, hemlock, foxglove, or other narcotics. The absorption of one tenth of a grain of oxalic acid (the acid of sorrel) killed a healthy rose bush in forty-eight hours. *Query.*—Is not the infertility of fields abounding in sorrel owing in some measure to the presence of this acid?

III. STATISTICS.

Dupin states, that in Great Britain the animal power is eleven times as great as the manual power, while in France it is only four times as great. Also, that Britain consumes three times as much meat, milk and cheese as France. In Hanover there are 193 horses to every 1000 inhabitants, 145 in Sweden, 100 in Great Britain, 95 in Prussia, 79 in France.—*Bulletin des Sciences Agricoles et Economiques.*

IV. FACTS IN RELATION TO BREEDING LIVE STOCK.

Professor Sturm, of Bonn, lays down the following as facts that occur in the breeding of live stock: "The male parent is the preserver and creator of a race. The first changes in crossing are always exhibited in those parts that possess the power of being reproduced, as the hair, horns, hooves, &c. The fleshy parts change slowly, in proportion as the mother has much of the blood of the original race. The first changes take place in the head, and are gradually developed towards the hinder quarters of the animal. The author also maintains, that to produce a new race, as many generations are necessary as years are for perfecting their teeth." The writer is Director of the agricultural institution at Bonn.—*Facts from id.*

V. MANURE FOR WHEAT.

Dr. Joseph E. Muse, states the opinion, that animal manures are particularly necessary for wheat crops, because gluten, the clear actuistic proximate principle of wheat, contains nitrogen, which assimilates to its animal bodies.—*Silliman's Journal.*

VI. ON THE USE OF GYPSUM FOR LEGUMINOUS PLANTS.

As the seeds of pod-bearing plants contain gypsum already, and have great tendency to absorb all the soil can contain of it, gypsum ought not to be applied to the soil destined for the culture of this family, *when grown for seed*, because it imparts such an energy of vegetation, that it stimulates them constantly to put forth very succulent leaves,—it produces great vines, but a small crop. When wanted for green fodder, it serves an excellent purpose.—*Bull. des Sc. Agri.*

VII. TO BOIL PEAS OR BEANS.

That dry peas or beans may readily boil soft in hard water, throw a small quantity of sub-carbonate of soda into the vessel in which the dry seeds are put to boil.—*id.*

VIII. PROGNOSTICS OF THE WEATHER.

Red clouds in the west, at sunset, especially when they have a tint of purple, portend fine weather. The reason of which is, that the air, when dry, refracts more red or heat-making rays; and as dry air is not perfectly transparent, they are again reflected in the horizon. A copper or yellow sunset generally foretells rain; but as indication of wet weather approaching, nothing is more certain than the halo around the moon, which is produced by the precipitated water; and the larger the circle the nearer the clouds, and consequently the more ready to fall. The old proverb is often correct:

A rainbow in the morning is the shepherd's warning:
A rainbow at night is the shepherd's delight.

A rainbow can only occur when the clouds, containing or depositing the rain, are opposite to the sun; and in the evening the rainbow is in the east, and in the morning in the west; and as our heavy rains in this climate are usually brought by the westerly wind, a rainbow in the west indicates that the bad weather is on the road, by the wind to us; whereas the rainbow in the east proves that the rain in these clouds is passing from us. When the swallows fly high, fine weather is to be expected or continued; but when they fly low and close to the ground, rain is almost surely approaching. This is explained as follows: Swallows pursue the flies and gnats, and flies and gnats delight in warm strata of air; and as warm air is lighter, and usually moister, than cold air, when the warm strata of one air are high, there is less chance of moisture being thrown down from them by the mixture of cold air; but when the warm and moist air is close to the ground, it is almost certain that, as the cold air flows down into it, a deposition of water will take place.—*Edin. New Phil. Journal.*

At my residence, the prognostics of rain, particularly in summer, are the appearance of detached clouds, or of fog, upon the tops or sides of the high lands in the distance, or the distinct sound of the town bells, two or three miles distant. They both indicate a state of atmosphere described in the last section of the preceding paragraph—lower strata of light and moist air. Upon the mountains these strata are condensed by the colder ones above them into perceptible vapor or clouds. The power of air to contain damp diminishes as its temperature falls; while sound extends farther in a light than in a heavy medium. Much damp in the air lightens it.

IX. THE TURNEP CULTURE.

The turnep culture was first introduced into England by Lord Townsend, in the beginning of the eighteenth century. Being with George I. in Germany, he observed the turneps cultivated in open and extensive fields, as fodder for cattle, and spreading fertility over lands naturally barren; and on his return he brought over with him some of the seed, made an experiment, and succeeded. The extent and value of this culture at the present day, in England, when I state, on the authority of Mr Colquhoun, that the annual crop is estimated to be worth fourteen millions pounds sterl., about sixty-three millions of dollars; and the subsequent advantages derived from their culture, in ameliorating and improving light soils, must infinitely exceed their estimated value for cattle.—*From Sir Walter Scott in the Quarterly Review.*

The climate of New-York is as congenial to turnep culture as most parts of Germany. The culture of the ruta baga for a dozen years, has satisfied me that it is one of the most profitable crops that can be grown, even for the subsistence of cattle, and that for sheep there is none more beneficial. I have cultivated them at an average expense of two to three cents a bushel, charging to the crop the whole of the manure applied.

THE DAHLIA,

Which now competes with the finest flowers of the garden, was first introduced into Spain from Mexico, in 1787. In 1802, three specimens reached Paris, and were cultivated in the house, and only propagated by seed. It was subsequently introduced into England. Its flower was originally single. The double and inconceivable variety which now grace our borders, are principally the result of the gardener's skill. The finest new varieties now sell in England as high as 7s. and 10s. sterling a plant or root, in such high estimation are they held by florists.

B.

MOUNTAIN RICE.

In the Library of Entertaining Knowledge, the following account is given of the *Mountain Rice*, and of an unsuccessful attempt to introduce its culture in England:

"*Mountan rice* thrives on the slopes of hills and in other situations where it can receive humidity only occasionally. Dr. *Wallich*, the able successor of Dr. *Roxburgh* as superintendent of the botanical garden at Calcutta, sent to London a few years ago some specimens of *rice* grown on the cold mountains of Nepal. These seeds were furnished to him by the resident of the East India Company in that district, and were recognised by the Doctor as *mountain rice*. The degree of cold which this plant is qualified to bear is very great According to the information collected on the subject by Dr. *Wallich*, the cultivators consider their crop quite safe if the growth of the plants is advanced five or six inches above the surface at the time the winter snows cover the ground It is probable that the slow melting of the snow is beneficial to the growth of the plant which advances with great vigor on the return of spring.

"A knowledge of these circumstances might have led to the opinion that this variety of *rice* could be naturalized in England, if the attempt had not already been fairly made by one well qualified for conducting the experiment. Samples of six different sorts of the *mountain rice* which had been procured by Sir *John Murray* from the neighborhood of Serinagur at the foot of Mount Imaus, were on the occasion alluded to, presented by the Board of Agriculture to Sir *Joseph Banks*, who planted each kind in a separate bed, in a sheltered spot with a south aspect in his garden at Spring Grove The grains which were sown very thin on the 21st of May, speedily sprang up,and the plants tillered so much that the beds put on the appearance of compact, dense masses of vegetation; each plant having from ten to twenty offsetts. Although the blades grew vigorously, attaining in a short time to the length of two feet, there was never any symptom of a rising stem; and if the ground was not watered, either by rain or artificially every three or four days, the plants began to assume a sickly hue. In this manner vegetation proceeded, without the smallest symptom of their perfecting themselves by fructification, when the plants were suddenly destroyed by an early night frost in September. Some of the plants which had been transferred to pots and placed in the hot-house at an early period of their growth, soon died; while others which were sown originally in a hot-house, produced ears and flowered but the blossoms dropped without perfecting any seed.

"The conclusion to which Sir *Joseph Banks* arrived from these experiments was unfavorable to the cultivation of rice in this country as a grain bearing plant." Part 29, p. 87.

With all due deference to so eminent a name, I must think this conclusion unwarranted. It appears from the information collected by Dr. *Wallich* that the mountain rice is a *biennial* plant; and that to have it well rooted in autumn is necessary to insure a good crop. In the experiment however, the rice was not planted till near the close of spring. If common winter wheat had been treated in the same manner, a conclusion might have been drawn with equal propriety, that the climate of England was unfavorable to the growth of wheat.

I think also that our author has been too easily satisfied on this point; and though writing so lately as the early part of the year 1832, he appears not to have known that any thing further had been done in England; or that this *variety* had been successfully introduced on the continent of Europe. The annexed account is from Loudon's Encyclopædia of Plants, published in 1829:

"The dry or mountain rice, cultivated in Ceylon, Java, and *of late in Hungary*, has the culm three feet high.——It is sown on mountains and in dry soils.——In the hilly parts of Java, and in many of the Eastern Islands, the mountain rice is planted upon the sides of hills, where no water but rain can come; it is however planted in the beginning of the rainy season, and reaped in the beginning of the dry season. It is entirely unknown in the western parts of India, but is well known in Cochin-China where it thrives in dry light soils, *mostly on the sides of hills*, not requiring more moisture than the usual rains and dews supply, neither of which are frequent at the season of its vegetation.——In Hungary rice has not been long cultivated: the mountain sort has been chiefly tried, and that in the manner of our barley or summer wheat.——In England a crop of rice has been obtained near Windsor on the banks of the Thames.——In Westphalia and some other parts of the south of Germany [the common?] rice has been long cultivated; there it is sown on lands that admit of irrigation.——From long culture in a comparatively cold country, the German rice has acquired a remarkable degree of hardiness and adaptation to the climate; a circumstance which has been frequently alluded to, as an encouragement to the acclimating of exotics It is found, Dr *Walker* remarks (*Essays on Nat. Hist.*) that rice seeds direct from India will not ripen in Germany at all, and that even Italian or Spanish seeds are much less early and hardy than those ripened on the spot."

Some years ago when I traveled in the western parts of Indiana I was told by a very respectable and intelligent man that the *mountain rice* had been cultivated by one of his distant neighbors with success. The product was said to vary from thirty to sixty bushels to the acre in the rough, which might diminish to one third of those quantities by hulling. I have learned nothing in regard to its culture since that time.

There can scarcely be a doubt that the mountain rice would succeed in the neighborhood of our lakes; and though it would not probably supersede any of our other crops, we might be able to raise enough for home consumption. I have wished to try the experiment; and a notice that a few seeds of this *variety* were wanted, was given in *The American Farmer* last year, but no answer has been returned from any part of the United States. D. T.

2 *mo.* 9, 1833.

A BEE STORY.

A friend told me the other day a bee story, and were he not a man on whose word I can strictly rely, I should set it down as a real Munchausen. Such as it is you shall have it.

In Wythe county, in Virginia, in a spur of the Allegany Mountains, called the "Tobacco Row," is a perpendicular ledge of rock fronting the south-east, about fifty feet high—an open sunny situation. About thirty feet from the base, a horizontal crack or fissure opens in the rock, from half an inch to six inches in width, and extending near eighty feet in length. How deep this fissure extends into the mountain is not known, as no one has ever examined it. *This fissure is full of bees!* Their numbers are so great, that in the summer time they hang out in huge clusters for several feet, above and below the fissure, in its whole length. A short distance above are two other cracks, containing earth, in which grow some little chinquapin bushes, and these are covered with the bees. They frequently go off in huge swarms, like a barrel or hogshead in bulk, and are often compelled to return, finding no place large enough to contain them. In the spring previous to commencing their labors, the dead bees, remnants of comb, and cleanings of the habitation which are brought out and dropped by them, make *a winrow* of a foot in height the whole length of the opening."

My informant saw it in the month of June, when immense numbers of bees were out on the surface, making great patches of rock black with their swarming masses. The oldest inhabitants say that the first settlers found the bees there, and the Indians told them that their oldest traditions knew nothing of its origin. "*It was always there.*"

No one has ever been found bold enough to attempt its plunder, or to examine the place where they are. It is, in fact, too dangerous an enterprise to meddle with.

If these facts be so, and I cannot doubt it, does it not form rather a new feature from that generally received in the history of the bee? *I rather guess there is more than one queen in that hive!* By the way, I fear that I am going to have all this bee discussion to myself. But we'll see.

Do none of the correspondents of the American Farmer live near this great bee hive? If so, I should be much gratified to hear further about it.

ULMUS.

MANURES.

In Vol. 3, No. 3, ULMUS, on the application of manure, (referring to an editorial article on that subject,) contends that the nearer manure can be kept in its natural state, until it is carried out for use, the better. And in speaking of the plan pursued by Dr. Hosack, he remarks: "In this way it is kept dry and in good order till used, when all its valuable properties are imparted to the soil. All kinds of *decomposable* matter, I believe, are to be treated in the same way. Moisture and heat will decompose them when properly applied, which is always the case, as their properties are required in the growing season."

I am fully persuaded, from actual experience, that he is entirely wrong; for dry vegetables are not manure, and when thus used the benefit is very trifling. Moisture and heat are essential to make manure, for without them the gases are never called into action, and winter manure requires all their assistance in order to decompose the coarse litter, and fit it for vegetable food by the spring, which is the best season for its use. And he further states, "there is an immense loss on the amount of manure throughout the country for the want of proper protection while in the yard, and from ignorance in the manner of using it;" which is too true, for a great proportion of the litter is carried out dry straw, or allowed to remain in the barn-yard until its fertilizing qualities are nearly exhausted, which renders either of little value. F.

LEISURE MOMENTS--No. XII.

NATURAL HISTORY.

The study of Natural History has been so much facilitated, by familiar and able treatises, that a person of the most ordinary abilities, and circumscribed advantages, can engage in it successfully. One of the most interesting, as well as useful works of the present day, that I have seen upon this subject, is some parts of "The Library of Entertaining Knowledge;" and as there are probably many readers of the Farmer who are not in possession of it, I shall make copious extracts from it, believing that well selected mat-

ter is far preferable to ordinary original. Natural history is, in many respects, the most easily pursued, and the most agreeable in the pursuit, of all the various branches of human inquiry and study. Whoever walks the fields or highways with his eyes open, may be the student of nature. There is as much to admire in the formation of the simple flower and harmless insect, as in her more stupendous works; and I know of no class of community better calculated for this study than farmers. "Every detached object of this science—every quadruped, bird, reptile, fish, worm or insect—every flower—every piece of metal, crystal, or stone—not only excites greater interest, when we have acquired, by careful investigation, a knowledge of its properties, but leads the mind forward to new subjects of curiosity. The first step in the successful communication of any branch of knowledge is to awaken the attention of the mind to the object, or assemblage of objects, to which that branch of knowledge applies. Without a habit of attention to the things around them, men walk about in the world with their eyes half shut; for they are insensible to all but the commonest external appearances, and have no perception of the minuter peculiarities which distinguish one class of objects from another, of the beauties of their structure, or of the harmonies of their arrangement." On the other hand, "it is amazing how much quickness the habit of observation will impart to the whole intellect, and give it an aptitute for understanding and enjoying the thing observed.

To enable an observer to make any valuable addition to the store of zoological knowledge, it is not necessary that he should be a profound anatomist, or skilful in languages, or acquainted with all the various systems of classification which have entered, perhaps too largely, into the science of zoology in all ages. "The Natural History of Selbourne" was written by the Rev. Gilbert White, who for forty years scarcely stirred from the seclusion of his native village, employing his time, most innocently and happily for himself, and most instructively for the world, in the observation and description of the domestic animals, the birds, and the insects by which he was surrounded."

AGRICULTURE IN OHIO.

We learn from the Ohio Register, that the Legislature of that state, at its recent session, passed an act to authorize and encourage the establishment of Agricultural Societies, in the several counties of that state, and for other purposes. This act makes it the duty of county commissioners, to give notice in the newspapers at their June session, that there will be a meeting on the last Friday of said month, for the purpose of forming a county Agricultural Society. If there shall assemble 20 or more persons, they may form a society. The society shall meet annually on the same day. The officers shall be a President, Vice President, Recording Secretary, Corresponding Secretary, Treasurer, and ten Directors, to hold their offices one year. The President, Directors and Treasurer to make the bye-laws. No member shall be compelled to pay more than $5 per year; all money raised to be applied to the advancement and encouragement of Agriculture, Horticulture, raising the best animals, and the production of such other articles of domestic growth, as the Directors may think proper. County commissioners may appropriate $50 per year to the society. The Directors must meet on the 3d Saturday in November, annually, and make out full reports of the effects of the society upon the Agricultural interests, &c. and transmit them to the chairman of the committee on Agriculture, in either house of the General Assembly.

Wheat, which is Eaten off in the Fall, supposed to Turn to Chess.

Until since the subject of wheat turning to chess has been agitated in the Genesee Farmer, I was not aware of the extent to which this error prevails among our farmers. I find it is not an error received by the uneducated and superficial only, but by men of education, sound good sense, and general information, who have been led to adopt it by appearances so strong in its favor. The conviction is an honest one, and to remove it from the mind, those appearances upon which it has been founded must be satisfactorily explained. The advocates of this doctrine have stated the grounds of their belief; they have brought forward a multitude of facts, some of them confessedly remarkable, sufficient to create this belief in the minds of those who do not reason philosophically, or examine with minuteness. To convince them of their error, we must account for these facts; at least, show how they might have taken place, without supposing the strange and unnatual theory of transmutation. This has been done to my satisfaction, but it seems not to the satisfaction of all. Conversing not long since with a friend and acquaintance, a worthy enterprising young farmer, of Ontario county, liberally educated, and who had studied a profession which is slow to admit any theory which is not founded upon the strongest evidence, I was surprised to find that, notwithstanding his science and general correct views, he was an advocate for the doctrine of transmutation. All that had been written on the subject against it had not convinced him. He said he once rejected it as a vulgar error, but a single fact, which came under his observation, fixed the conviction of its truth in his mind. The fact related by him, as near as can be recollected, was this: He had occasion to run a fence between a piece of wheat and meadow in the fall, in order to turn his sheep on the meadow; the fence being a crooked rail fence, a small portion of wheat was thus thrown into the meadow, which was consequently eat off by the sheep. Where this wheat was eat off, the next summer there grew up abundance of chess, with little or no wheat, while on the other side of the fence, in the wheat field, there was no chess to be seen. He therefore inferred that the wheat which was eaten off by the sheep was converted to chess. The fact, however remarkable, I think may be accounted for without admitting the conclusion at which he arrived. There was probably some chess with the wheat that was sown, or previously in the ground. The wheat was destroyed by being eat down by the sheep, and by the action of the frost, while the chess, being more hardy, remained; having sole possession of the soil, it put forth its vigorous stalks, and produced its seed. But why did there appear no chess on the other side of the fence? I am inclined to think, that where wheat is sown with a small quantity of chess, sufficiently thick, on good soil, the wheat takes the lead, and prevents the chess from attaining that maturity which it otherwise would. It is perhaps mostly of so humble growth as to escape observation. But when the wheat is killed by being eat off, drowned in wet spots, or froze out, there the chess has nothing to contest its right of growth. Hence we see it growing most abundantly in such places. The reason, therefore, why there appeared no chess on the other side of the fence among the wheat, I conceive to be, not that there had been no chess seed in that part of the ground, or none growing among the wheat, but that the wheat prevented its coming to maturity, or growing to such a height as to be perceptible. In this way I think we may account for the fact stated by my friend, without adopting the unnatural and unphilosophical theory of transmutation. If any one can give a more rational explication, we should be happy to hear it. W. W. B.

Hammond's Port, Jan. 20, 1833.

VEGETABLE PHYSIOLOGY.

Professor *Nuttall* in his excellent Introduction to Systematic and Physiological Botany, says, "The numerous buds of each tree, nourished through the common medium of the trunk and branches, perish after development and maturity, and are succeeded anew by another generation of ingrafting or protruding buds, for which they have provided by the deposition of the alburnum. The growth of every tree, as well as herb, is then strictly *annual;* and the trunk is produced by a curious junction of dead and living matter." p. 220.

To my comprehension, this passage is not clear. The *buds* of trees *contain* in embryo (and therefore partly consist of) *the leaves* which are afterwards developed; and if these are evergreen *they* (a constituent part of those buds) maintain their vitality for several years.

The *new branch* may be considered *another part* of the buds; and the alburnum which elevates the sap, must always be in a living state when it performs that office; but of a great number of trees, the alburnum (or sap-wood) forms the principal part of the trunk and branches.

Neither do I perceive how this doctrine can be applied to *tropical plants* which "continue throughout the year in a state of active* growth." They are not interrupted by seasons, and therefore can have nothing *annual* about them.

A Practical Gardener.

* Introduction, page 222.

FRESH GRAPES.

About the 1st of March, the editor of the Long Island Farmer was presented with several clusters of Isabella Grapes of fine flavor and quality, which had been preserved perfectly fresh, and appeared as plump and tasted as delicious as if just taken from the vines. Theywere preserved in the following manner: When ripe they were carefully gathered in clusters, and the ends of the stems sealed with common sealing-wax to prevent the escape of the vinous fluid through the fractured pores—they were then placed in a jar, gently bedded in saw dust which had been kiln-dried; and the pot itself then covered and sealed: We are not aware, says the editor of the Farmer, that this method of preserving grapes is generally known; if it is not, we recommend it to the attention of those who desire the luxury of this species of fruit during the winter and spring

CULTURE OF INDIAN CORN.*

BY JESSE BUEL, ESQ.

There is no crop more beneficial to the American farmer than Indian corn. An eminent agriculturist, the late John Taylor, of Virginia, called it the "meal, meadow, and manure" of the farm. It is convertible into human food in more forms than any other grain; its value in fattening domestic animals is not exceeded by any product of the farm; and no crop returns more to the soil than this does in the form of manure. There are two important requisites, however, to its *profitable* cultivation. The first is, that the soil be adapted to its growth; and the second, that the crop be well fed and well tended: for food and attention are as important to the plant as to the animal. Ordinarily speaking, it costs less to take care of a good crop of corn, on proper corn land, than it does of a bad crop on land not adapted to its culture. The first is light and dry. The latter stiff, wet or grassy. I put the average expense of cultivating and securing an acre, at $15, (*a*) including a fair rent, though it ordinarily exceeds this sum. The farmer, therefore, who obtains thirty bushels from the acre, estimating the grain at 50 cents per bushel, gets a fair compensation for his labor, and the use of his land. Whatever the product falls short of this is an absolute loss; and whatever it may exceed it is net gain. Thus the man who gets but twenty bushels from the acre, loses, upon this estimate, $20 worth of his labor, on four acres. He who raises 80 bushels an acre, on the other hand, realizes a net profit of $100 from four acres —making a difference in the profits of the two farmers, in the management of four acres of corn, of *one hundred and twenty dollars!* These data are sufficiently accurate to show the importance of the two requisites I have suggested, and the value of a little calculation in the business of farming. The habit of noting down the expense, as well as the product of a crop, and thus ascertaining the relative profit and loss, is highly advantageous to the practical farmer, and one which cannot be too strenuously inculcated. It will perhaps be said, that I ought to add the value of the manure which is employed in the large crop; but I reply, that I offset this against the increased forage which this crop furnishes. Besides, by applying the manure in the unfermented state in which it is generally found in the spring, it will be as beneficial to the succeeding crops, as though it had lain and fermented in the yard, and been applied in the usual way in the autumn. (*b*)

The soils adapted to the culture of Indian corn, are such as are permeable to heat, air (*c*) and the roots of the plant, and embrace those denominated sandy, gravelly and loamy. Corn will not succeed well on grounds that are stiff, hard or wet. The roots grow to as great a length as the stalks, and the soil must be permeable to permit their free extension.

The manures used are generally yard and stable dung, and plaster of paris, (*sulphate of lime.*) The first ought to be abundant; as upon the fertility which it induces, depends the profit of the crop. Long or unfermented manure is to be preferred. It decomposes as the wants of the plant require it; while its mechanical operation, in rendering the soil light and porous, is beneficial to the crop. It should be equally spread over the whole surface, before it is ploughed under. It then continues to afford fresh pasture to the roots till the corn has matured, and is in its place to benefit the succeeding crop. If put into the hills, the roots soon extend beyond its influence, it does not so readily decompose, and the subsequent crop is prejudiced from its partial distribution in the soil. In a rotation of four or five years, in which this crop receives the manure, twenty-five or thirty ordinary loads may be applied to *one* acre with greater profit, than to *two* or *three* acres. Every addition tells in the product; and there is scarcely any danger of manuring too high for this favorite crop. Gypsum is applied broadcast before the last ploughing or harrowing, or strewed on the hills after hoeing. I pursue the first method, at the rate of a bushel to the acre. (*d*)

The best preparation for a corn crop is a clover or other grass lay, or lea, well covered with a long manure, recently spread, neatly ploughed, and harrowed lengthwise of the furrow. A roller may precede the harrow with advantage. The time of performing these operations depends upon the texture of the soil, and the quality of the sod. If the first is inclining to clay, or the latter tough or of long continuance, the ploughing may be performed the preceding autumn; but where sand or gravel greatly preponderate, or the sod is light and tender, it is best performed in the spring, and as near to the planting as convenient. The harrow at least should immediately precede planting. All seeds do best when put into the fresh stirred mold. Stiff lands are ameliorated and broken down by fall plowing; but light lands are rather prejudiced by it. When corn is preceded by a tilled crop, the ground should be furrowed, and the seed deposited in the bottom of the furrows. Where there is a sod, the rows should be superficially marked, and the seed planted upon the surface. Where the field is flat, or the sub-soil retentive of moisture, the land should be laid in ridges, that the excess of water which falls may pass off in the furrows.

The time of planting must vary in different districts and in different seasons. The ground should be sufficiently warmed by vernal heat to cause a speedy germination. Natural vegetation affords the best guide. My rule has been to plant when the apple is bursting its blossom buds, which has generally been between the 12th and 20th of May.

Preparation of the seed. The enemies to be combatted are the wire worm, brown grub, birds and squirrels. Of these the first and two last prey upon the kernels, and against these tar offers a complete protection. I soak my seed 12 to 20 hours in *hot* water, in which is dissolved a few ounces of crude salt petre, and then add (say to 8 quarts of seed) half a pint of tar, previously warmed and diluted with a quart of warm water. The mass is well stirred, the corn taken out, and as much plaster added as will adhere to the grain. This impregnates and partially coats the seed with the tar. The experience of years will warrant me in confidently recommending this as a protection for the seed.

The manner of planting is ordinarily in hills, from two and a half to six feet apart, according to the variety of corn, the strength of the soil, and the fancy of the cultivator. The usual distance in my neighborhood is three feet. Some however plant in drills of one, two and three rows, by which a greater crop is unquestionably obtained, though the expense of culture is somewhat increased. (*e*) The *quantity of seed* should be double, and may be quadruple (*f*) what is required to stand. It is well known that a great difference is manifest in the appearance of the plants. Some appear feeble and sickly, which the best nursing will not render productive. The expense of seed, and the labor of pulling up all but three or four of the strongest plants in a hill, it is believed will be amply remunerated by the increased product. If the seed is covered, as it should be, with fine mold only, and not too deep, we may at least calculate upon every hill or drill having its requisite number of plants.

The after culture consists in keeping the soil loose and free from weeds, which is ordinarily accomplished by two dressings, and in thinning the plants, which latter may be done the first hoeing, or partially omitted it till the last. The practice of ploughing among corn, and of making large hills, is justly getting into disrepute; for the plow bruizes and cuts the roots of the plants, turns up the sod and manure to waste, and renders the crop more liable to suffer by drouth. The first dressing should be performed as soon as the size of the plants will permit, and the best implement to precede the hoe is a corn harrow, adapted to the width of the rows, which every farmer can make. This will destroy most of the weeds, and pulverize the soil. The second hoeing should be performed before or as soon as the the tassels appear, and may be preceded by the corn harrow, a shallow furrow of the plow, or what is better than either, by the cultivator. (*g*) A slight earthing is beneficial, providing the earth is scraped from the surface, and the sod and manure not exposed. It will be found beneficial to run the harrow or cultivator a third, and even a fourth time, between the rows, to destroy weeds and loosen the surface, particularly if the season is dry. (*h*)

In harvesting the crop, one of three modes is adopted, viz. 1. The corn is cut at the surface of the ground, when the grain has become glazed or hard upon the outside, put immediately into stooks, and when sufficiently dried, the corn and stalks are separated, and both secured. 2. The tops are taken off when the corn has become glazed, and the grain permitted to remain till October or November upon the butts. Or, 3. Both corn and stalks are left standing till the grain has fully ripened, and the latter become dry, when both are secured. There are other modes, such as leaving the butts or entire stalks in the field, after the grain is gathered; but these are so wasteful and slovenly as not to merit consideration. The stalks, blades and tops of corn, if well secured, are an excellent fodder for neat cattle. If cut, or cut and steamed, so that they can be readily masticated, they are superior to hay. Besides, their fertilizing properties, as a manure, are greatly augmented by being fed out in the cattle yard, and imbibing the urine and liquids which always there abound, and which are lost to the farm in ordinary yards without an abundance of dry litter to take them up. By the first of these methods, the crop may be secured before the autumnal rains; the value of the fodder is increased, and the ground is cleared in time for

* Read before the New-York State Agricultural Society, at their annual meeting, Feb. 14, 1833.

a winter crop of wheat or rye. The second mode impairs the value of the forage, requires more labor, and does not increase the quantity, or improve the quality, of the grain. The third mode requires the same labor as the first, *may* improve the quality of the grain, but most inevitably deteriorate the quality of the fodder. The corn cannot be husked too promptly after it is gathered from the field. If permitted to heat, the value of the grain is seriously impaired. (*i*)

Saving seed. The fairest and soundest ears are either selected in the field, or at the time of husking, a few of the husks being left on, braided and preserved in an airy situation till wanted for use.

In making a choice of sorts, the object should be to obtain the varieties which ripen early, and afford the greatest crop. I think these two properties are best combined in a twelve rowed kind which I obtained from Vermont some years ago, and which I call Dutton corn, from the name of the gentleman from whom I received it. It is earlier than the common eight rowed yellow, or any other field variety I have seen, and at the same time gives the greatest product. I have invariably cut the crop in the first fourteen days of September, and once in the last week in August. The cob is large, but the grain is so compact upon it that two bushels of sound ears have yielded five pecks of shelled grain, weighing 62 lbs. the bushel.

In securing the fodder, precaution must be used. The buts become wet by standing on the ground, and if placed in large stacks, or in the barn, the moisture which they contain often induces fermentation and moldiness. To avoid this I put them first in stacks so small, that the whole of the butts are exposed upon the outer surface; and when thoroughly dry they may be taken to the barn, or left to be moved as they are wanted to be fed out—merely regarding the propriety of removing a whole stock at the same time.

NOTES.

(*a*) *Estimated expense of cultivating an acre of Indian corn:*

One ploughing, (suppose a clover lay)	$2 00
Harrowing and planting,	2 00
Two hoeings 4 days and horse team,	3 75
Harvesting, 2 days,	1 50
Cutting and harvesting stalks,	1 50
Rent,	5 00
	—$15 75

(*b*) Stable and yard manures lose 50 per cent. by the fermentation they undergo in the yard during the summer. This loss consists of the gases which are evolved in the process of rotting, and of the fluids which sink into the earth, or are carried off by the rains. Plants receive their food either in a gaseous or liquid form. If manure rots in the soil, neither these gases or fluids are lost: the earth retains, and the roots of the plants imbibe them. Yet recent manures are not proper to be applied to small grains. They cause too rank a growth of straw, and are apt to induce rust and mildew. Thus a crop of corn, potatoes, or ruta baga may be *fed* and *fattened*, if I may use the expression, upon the dung which is destined to nourish the wheat crop, without deteriorating its value for the latter purpose, if it is applied to the corn, &c., before it has fermented.

(c) We are on the northern border of the maize zone, and should make up for defect in climate by selecting soils into which the heat readily penetrates. Air, besides conveying warmth in summer, imparts fertility by the vegetable food which it always suspended in it in the form of gases.—Dews are also charged with these properties of vegetable nutriment, and when the soil is porous they settle down as in a sponge, and impart fertility to the roots (the true mouths) of plants.

(*d*) I adopt the opinion of Davy, as the *modus operandi* of plaster of paris, that it forms a necessary constituent of plants which it benefits, and is of no direct benefit to plants which do not afford it on analysis. Among the first are the clovers, corn, potatoes, and generally such plants as have broad or succulent leaves; while the latter embrace culmiferous grains and grasses, as wheat, rye, timothy, &c. Critical observation for years has confirmed me in this conclusion. Gypsum must be rendered soluble before it can be taken up by the mouths of plants, and it requires 600 parts of water to dissolve one of this mineral. I infer from these facts, that by burying it in the soil it more readily dissolves, and is more accessible to the mouths of plants, than if spread upon the surface of the ground. I am induced, from these views of the subject, to sow plaster, on grass grounds, in March, and upon corn and potato grounds before the last plowing for these crops. The latter was recommended and practiced by the distinguished agriculturists, the late Mr. Taylor of Virginia, and Judge Peters, of Pennsylvania.

(*e*) The following table exhibits the difference in product of various methods of planting, and serves also to explain the manner in which large crops of this grain have been obtained. I have assumed in the estimate, that each stock produces one ear of corn, and that the ears average one gill of shelled grain. This is estimating the product low; for while I am penning this (October) I find that my largest ears give two gills, and 100 fair ears half a bushel of shelled corn. The calculation is also predicated upon the supposition, that there is no deficiency in the number of stocks, a contingency pretty sure on my method of planting.

	hills.	*bush.*	*qts.*
1. An acre in hills, 4 feet apart, each way, will produce	2722	42	16
2. The same, 3 by 3 feet,	4840	75	20
3. The same, 3 by 2½ feet,	5808	93	28
4. The same, in drills, at 3 feet, plants 6 inches apart, in the drills,	*Stalks.* 29,040	113	14
5. The same in do 2 rows in a drill, 6 inches apart, and the plants 9 inches, and 3 feet 9 in. from center of drills thus, ...	30,970	120	31
. . . .			
6. The same in do. 3 rows in a drill, as above, 3 ft. from centers of drills,	43,560	170	5
. . . . .			
. . . . .			
. . . . .			

The fifth mode I have tried. The ground was highly manured, the crop twice cleaned, and the entire acre gathered and weighed accurately, the same day. The product in ears was 103 baskets each 84 lbs. net, and 65 lbs. over. The last basket was shelled and measured, which showed a product on the acre of 118 bushels 10 quarts. I gathered at the rate of more than 100 bushels the acre, from four rods planted in the third method, last summer, the result ascertained in the most accurate manner. Corn shrinks about 20 per cent after it is cribbed. The sixth mode is the one by which the Messrs. Pratts, of Madison county, obtained the prodigious crop of 170 bushels per acre. These gentlemen, I am told, are of opinion, that the product of an acre may be increased to 200 bushels.

(*f*) I am told the Messrs. Pratts, above alluded to, used seven bushels of seed to the acre, the plants being subsequently reduced to the requisite number.

(*g*) The cultivator is made in the form of a triangular harrow, with two bulls; or if intended to be graduated to different widths, a center bull is added, to which the exterior ones are attached by hinges. Iron slats, fixed to the exterior bulls, pass through a mortice in the center one, perforated with holes, through which an iron pin passes to hold them at the graduated width. The teeth may be in any approved form, or reasonable number. The cultivator I use has five teeth, two in each of the outward, and one upon the center timber. The teeth have a stout shank, with a duck's foot termination, four inches broad, somewhat cylindrical, rounded at the point and inclined forward in an angle of 30 or 40°. This implement is useful for other purposes; and may be used, like Beatson's, as a substitute for the plough, in preparing light soils for a crop. The handles are attached to the center piece. The teeth have a shoulder, on the under side of the timber, and are fastened with screws and nuts above.

(*h*) Some entertain a mistaken notion, that it is prejudicial to stir the soil among corn in dry weather, and others that weeds serve to prevent the evaporation of moisture by a hot sun. The reverse of these opinions is true. The exhaustion of moisture by a plant is in the ratio of the surface of its leaves and stocks presented to the sun and air.

(*i*) The leaves are the necessary organs for elaborating the food of plants, and when these are taken away the plant must cease to grow. The sap is useless until it undergoes elaboration in the leaves. Hence, when corn is topped in the usual way, the supply of food is cut off from the grain, except what may be elaborated in the husks. On comparing corn gathered by the first and second modes, it was the opinion of those who assisted in husking, that the first was soundest, brightest, and heaviest. The third mode I have not tried. But it seems probable that the grain might acquire an increase of volume, though it would lose again by depredation and waste. The first method has these further advantages that it preserves the cob from being saturated with rains, and secures the fodder, when it is in its highest perfection and greatest quantity.

ON GARDENING—NO. II.

In forming a hot bed, the first point to be determined is the size required for the frame. Having ascertained this, allow from six to eight inches wider and longer for back, front, and both ends; fix on the proper situation, invariably building the bed lengthways due east and west, which will concentrate the greatest portion of the sun's rays on the sashes of the frame. Then drive four stakes in the ground, one at each corner of the intended bed, and commence placing the manure within or parallel with the limits of those stakes. In building the bed, the great point to be attended to is the properly shaking and separating the materials, otherwise the bed will settle in an irregular manner, and the heat would not be by any means uniform. As the building of the bed advances, give it a regular beating with the back of the dung fork, raising the handle in a slanting direction. At the height of two feet or two feet and a half, place an extra tier of dung on the back or north part of the bed, raising it to the height of three feet, and give the whole surface a gradual slope to the south side of the bed. In finishing this last tier, shovel up all the short manure round the bed, and spread it regularly on the top; beat the sides and ends with the back of the dung fork until they are quite even, which will give its exterior a neat appearance. When the whole is finished, place the frame on the bed, leaving an equal margin on all sides, outside the frame; put on the sashes and keep them closely shut for a day or two, until the heat rises, when it will be necessary to lift the sashes at the north end an inch or two, to allow the rank gases to escape. Put a barrow load of good, rich, friable mold in the center under each light, and as soon as the air in the bed becomes sweet, (which will be easily ascertained by the smell) plant four or five CUCUMBER seeds, *Cucumis sativa*—or MELON seeds, *Cucumis melo*, whichever is the in-

tended crop, on the top of each hill, covering with nearly an inch of mold. The nearer the mold of those hills resembles a cone in shape, so much the better. In a few days the plants will appear, and attention must be given to admit fresh air, every mild day, by tilting the sashes from half an inch to one or two inches, according to the influence of the sun and the temperature of the external atmosphere; otherwise the plants would grow weakly, or what gardeners term "*drawn*." As the roots of the plants become visible on the outside of the mold, add more and more, as required, until the whole bed is covered eight or ten inches, during which time the plants will require moderate waterings, which should be applied, as near as possible, at a temperature the same as the air in the frame. When the plants have put out their *rough* leaves, select two of the strongest under each light, and take the weaker plants entirely away—two plants will be amply sufficient to fill the allotted space.

For *raising* cauliflower, cabbage, or lettuce plants; *growing* radishes, carrots, &c.; or *forwarding* peas, beans, and other desirable vegetables, every farmer may accomplish this at a very trifling expense. The manure will not require so much preparation, and that material will be equally useful for other purposes, when the young plants are transplanted into their respective situations in the garden. Build the bed in the same manner as directed above for a frame, only not so high; when finished, strong stakes are to be drove in the ground close to the bed, and at a distance of four feet apart round the bed on all sides, leaving them a foot higher than the surface of the bed; to these stakes or posts boards must be nailed, keeping them level with the top of the post, and to a depth of two feet, which gives an allowance for the bed to sink nearly a foot, and still preserve the board below the surface of the manure. Then cover the whole surface of the bed with six or eight inches of good, rich, dry mold, and the seeds may be sown at once.

Cauliflower, *Brassica oleracea var botrytis.*—Allot a sufficient portion of the bed for the quantity of plants required, and sow the seeds regularly over the surface, covering them nearly three-fourths of an inch with fine, dry, light soil, and if sifted through a coarse sieve, so much the better. The cauliflower is a most delicious vegetable, and deserving of general cultivation.

Cabbage, *Brassica oleracea capitata*—comprises a tribe of vegetables too well known, and too generally esteemed, to require any eulogium here. In sowing on a hot bed as an early crop, observe the same method as described for the cauliflower.

Lettuce, *Lactuca sativa*—is a hardy, useful and wholesome vegetable, either as a salad or for soups. In sowing these seeds, a less quantity of soil for covering the seeds must be given than for either cauliflower or cabbage, but in every other respect the treatment must be the same.

Radishes, *Raphanus sativus*—and Carrots, *Daucus carota*—when they are required early, may be sown on a bed prepared as above. The best sorts for this purpose are the early frame radish and the early horn carrot, which comes much earlier, but as respects size, is very inferior to the other varieties of the carrot.

Peas, *Pisum sativum*—Beans, *Vicia faba*—and Kidney Beans, *Phaseolus vulgaris*, &c.—to be forwarded a stage in their growth, but finally grown in the open ground, may be sown as follows: Cut a quantity of turf into pieces about twelve or fourteen inches long, and three or four inches wide, place them in a regular manner, over the surface of the bed, grass side downwards. Sow a row of peas, &c. upon each row of turf, and afterwards cover the whole with two or three inches of light, dry soil. To prevent a further reference to this subject, I shall here add—At the proper time for transplanting, (when they are three or four inches high) lift out the turf, piece by piece, with the peas, &c. growing upon it; plant them where they are to produce their crop, and draw fresh soil to them. By this method the roots receive no injury, neither do the plants receive the least check in transplanting. Potatoes may be forwarded in the same manner, and the extra trouble will be rewarded by crops at least a week or two earlier. But to return to the management of the seeds while in the nursery bed. After the seeds are properly covered with soil, the beds should be covered with mats, (cauliflowers, cabbages, &c. &c. the same) boards and litter or straw, or any other suitable covering, every night, and even in the day time during severe weather. There is one very essential point which deserves a few remarks, as respects the covering of such temporary frames, or in protecting individual plants, or groups of plants in like manner; that is, never to allow the mats, &c. to come in contact with the substance they are intended to protect. It should always be kept at a distance of from six to eight inches. The *rationale* of this will appear evident, when we consider that heat is given out by all bodies in straight lines or rays, as light flows from the sun; that the rays of heat may be reflected back again by any body, however thin; and that any covering, whether thick or thin, placed in close contact with a heated body, will not reflect back its heat, but, on the contrary, if of a dark color, will promote its escape by radiation. This is a primary consideration in every experiment in acclimatizing exotic plants, or in sheltering those we are forwarding by artificial means.

It is not my intention in prosecuting my future remarks on gardening, to introduce *many* directions as to forcing, but that every thing may be applicable to the season as far as possible, I have considered it advisable to offer the preceding observations. My principal object, however, is to lay before the readers of the Genesee Farmer the simplest and easiest modes of cultivating vegetables, shrubs and flowers, and discriminating as far as practicable, between the various sorts of vegetables, &c. and selecting those best adapted for this section of the country, hoping by these means to enhance the taste for the different branches of gardening, which I am happy to say is progressing with a rapidity truly gratifying to the lovers of the art. In pursuing this plan, I would here most particularly recommend *system* in every pursuit, and in the performance of every operation. System is a subject of so much importance that it cannot be too often recommended: by previously determining what crops are to be raised in each compartment, or division of the garden, we shall commence, progress and finish in a regular, systematic manner; our every operation will follow in proper order, and considerable labor will be saved in the execution.

The borders recommended round the garden in last week's paper, will answer for the choicer sorts of vegetables, or for a small portion of the grosser sorts, which we may desire early, such as lettuce, spinach, early carrots, radishes, early potatoes, peas, &c. &c. The four quarters, or grand divisions for the general crops of peas, beans, carrots, onions, cabbages, cauliflowers, brocolis, beets, parsneps, potatoes, asparagus, sea kale, &c. &c. A border of from three to four feet wide should be left all round each of these quarters, if the garden exceeds half an acre, (but only on each side of the center walks if it does not contain that quantity of ground) and planted with ornamental dwarf shrubs and showy flowering plants, which will afford a source of enjoyment, and create a relish for the beauties of nature. The best sorts of vegetables, shrubs and flowers, with the proper times for sowing, and the most approved methods of cultivation, shall therefore form the subjects of my future communications on gardening. Very respectfully,

ALEXANDER GORDON.

Rochester Nursery, Main-st., March 18, 1833.

P. S. No time should be lost in selecting and cutting the *Cions* or grafts which are intended for engrafting this spring. It is necessary that the *Cion* should be detached several weeks before it is inserted on the intended stock. Cions should be shoots of last season's growth. The outside or lateral branches are preferable, if from healthy trees. By cutting the grafts before the season for grafting arrives, the stock has the advantage over the graft in forwardness of vegetation, which is very essential in effecting a quick adhesion. A. G.

PLOUGHS.

Mr. Editor—Your correspondent, Mr. Thomas Tufts, makes an inquiry for a plough that will "turn a deep furrow, and lay it flat like the boards of a floor," which I take to be an extremely difficult operation, as he will be convinced if he will investigate the subject. Let him imagine the furrow a stick of timber that has to be turned over, and the plough a wedge or curvilinear inclined plane, that is to effect its revolution; as the plough advances the wedge elevates the sod, while the twist of the mold board inclines one edge or side of the furrow to the perpendicular, or a *little more*, and it falls of its own gravity. Now if the earth or sward raised is in the form of a plank, say eight inches wide and two inches thick, if it is forced a little more than two inches out of the perpendicular, it falls itself; but if it was eight inches square, it must be forced more than eight inches beyond the perpendicular before it will fall, and be reversed from its first position; or what is the same thing, it must, like a square stick of timber, be rolled on two of its sides, which no plough can be constructed to effect. Three or four inches is the most that any of the tails of the mold boards droop beyond the perpendicular line of the cutting edge.

The Scotch plough, which are now being made near Caledonia, in this county, by a mechanic from that country, will come the nearest to that gentleman's requirements of any within my knowledge; its inclination, and consequently the rise of the furrow, is slow, and the droop of the tail of the mold board is greater than any other, operating like a plastering trowel to *slick* off the work

In those countries where the writer of this article has seen them in operation, they perform decidedly the best green sward work of any ploughs that have yet been introduced. They are very long and rather unwieldy, and are apt to excite prejudices in the minds of those who have never used them; but in old fields and tough swards they are the *end of the law* in doing good work.

I apprehend that your correspondent is mistaken in his notions of deep ploughing, as well as in laying his furrows entirely flat. In the first place, deep ploughing puts the vegetable matter beyond the reach of any of the annual plants that farmers cultivate, and as to getting rid of weeds if they are buried beyond the reach of the germinating power, they are as likely to extend to the depth of any furrow that can be ploughed.

Secondly, on the subject of laying the furrows entirely flat. I know of no case in which it is decidedly beneficial, except for immediate corn planting; but for summer fallowing, the decomposition is much better effected by lapping the furrows, it allowing air to be introduced into the interstices, and allows a part of the vegetable soil to remain upon the surface for the nourishment of the seed, before it has pushed its roots to the depth it would have to in case of the flat furrows. But these are matters of opinion—experience must be the umpire. L.

STATE AGRICULTURAL SCHOOL.

On the 18th inst. in the Senate of this state, Mr. Sudam, from the select committee of eight, to which was referred the memorial of the State Agricultural Society, reported in favor of the establishment of a State Agricultural School. The report was accompanied by a bill, the material provisions of which are stated in the Albany Argus to be as follows:

1. The Comptroller to issue certificates of stock to the amount of $100,000, bearing an interest of 5 per cent., and redeemable in 20 years, to be sold at public auction in the city of New-York, to the highest bidder, the proceeds to be applied to the establishment of the school.

2. Three commissioners to be appointed by the Governor, to purchase a farm, and contract for the erection of suitable buildings for a school sufficient for the accommodation of 200 pupils, the the officers of the institution, and the servants for the farm.

3. The Governor and Senate to appoint seven trustees to manage the concerns of the institution, who shall appoint a principal, teachers, and overseers, and employ the necessary laborers and assistants, and to prescribe, with the advice of the principal, the police and regulations of the school.

4. The trustees to be a body corporate and politic, and required to report annually to the legislature, or regents of the University, a full statement of the condition of the institution in all its branches. No pupil is to be admitted into the school under the age of 14 years.

Mr. Sudam said it was not the intention of the committee to press the bill to a third reading at this session. They only desire that it be discussed; and that the report of the committee, and the views of those friendly to the measure, should be spread before the public, for the purpose of enabling the next legislature to judge whether it met the approbation of the citizens of the state. Four times the usual number of copies of the bill and report were ordered printed.

There is iron enough in the blood of 42 men to make a plough share weighing 24 pounds.

NOTICE

Is hereby given, that the semi-annual meeting of the WHEATLAND AGRICULTURAL SOCIETY, will be held at Garbuttsville, on Saturday, April 6, at 1 o'clock, P. M. A general attendance of Farmers and Mechanics, who take an interest in useful improvement, is earnestly requested.

It is expected that individuals will then make choice of such *Agricultural experiments* as they will feel willing to try, and report progress at the annual meeting.

It is desirable that we should possess more knowledge of the different varieties of soil which exist among us, and what grains, &c. are best adapted to each; on tillage; its best time for the various crops; the various grains, and the attendant labor incurred, with their relative value; on manure, its value, the best time for its use, on what crops, and in what state; on stock, their varieties, their comparative profit with grain on arable soil; and any other subject which individuals may suggest.

JOHN BUTTERFIELD, *Sec'y.*

☞ To make room for the very valuable communication of Judge BUEL on the *Culture of Indian Corn*, we have been compelled to omit several articles intended for this week's paper. We should be greatly obliged to Judge B. or to any reader of the Genesee Farmer, who would furnish us with similar treatises on the culture of the various spring crops.

GOLDEN LEAF TOBACCO.

TO THE EDITOR—Last year you published my advertisement with respect to golden leaf tobacco seed, and I sent you some of the seed. You will know, if you or your friends tried it, if it got ripe as the leaf did here, although the seed did not, it being at least twenty days more backward than the year before. You will know, also, that it was four times the heft of crop of the old kind, at least it was so here of our old kind. And the price in Albany is three times as high as the old kind, and more than answers Gov. Clinton's recommend, as one acre of the crop is worth more than four times that of any other crop I am acquainted with. I have received information from the west, and other quarters, that the seed did not get ripe, although the leaf did. I therefore sent to Maryland for a fresh supply, a spoonful of which I send you. If you will notice in your paper, for the benefit of farmers, in your own way, that I have the seed to sell at one dollar per spoonful—letters to me post paid—and I will send directions to each for its culture and cure, different from the old kind, which I have received from Mr. Angel, our Congressman. Printers inserting the notice, seed gratis, by sending me a paper.

Yours, &c. Z. MATTESON.

Matteson's Mills, Otsego co, N. Y. March 1, 1833

NATIVE AND FOREIGN GRAPES.

ISABELLA, Catawba, Winne, Black Hamburgh, &c., &c., to be had in any quantities; good rooted plants, one, two and three years old, and cuttings in large and small quantities, at the Rochester Nursery on Main street.

mar 23 ALEXANDER GORDON.

FRUIT TREES.

THE subscriber has on hand 152 sorts of the very choicest cultivated Apples, of particularly handsome growths, and 70 sorts of the most esteemed varieties of European and American Pears Also, an extensive assortment of Plums, Peaches, Cherries, &c. at the New-York prices.

☞ *CIONS* of the above extensive assortment of Fruit Trees may be had on application at the Rochester Nursery, on the most reasonable terms.

ALEXANDER GORDON.

Rochester Nursery, March 23, 1833.

NORTHERN FARMER,

AND PRACTICAL HORTICULTURIST.

An Agricultural Periodical, published in Newport, N. H., once a fortnight, by

H. AND C. H. E. NEWTON.

THE Northern Farmer is printed on new type and fine paper, in a quarto form, convenient for binding; making an annual volume of 208 pages; to which will be added at the end of the year, a title page and an index of the principal matters contained in the volume, at the low price of $1,00 in advance. This paper, as its title imports, is devoted to the interests of Agriculture, Practical Science, and the useful Arts.

ENGLISH GARDEN SEEDS.

EVERY variety of the most approved sorts of culinary Vegetables, and Ornamental Flower Seeds, directly imported from the first rate seedsmen in England, to be had at the Rochester Nursery, and at New-York prices

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GRAPE VINES FOR SALE.

ROOTS and cuttings of Vines, choice natives from Maj. Adlum's Vineyard, Georgetown, (D. C.) and some of foreign origin; a valuable assortment for wine and table fruit and which flourish well in the Genesee country. Roots by the dozen or hundred, and cuttings by the dozen, hundred or thousand. Also, young and thrifty QUINCE TREES, a valuable article to cultivate with vines. JOSIAH STRONG.

Ogden, March 25, 1833. m23r3t

FOR SALE,

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oct 6-ftf

ALBANY SEED STORE.

C. BUEL & CO., having bought the Seed Establishment of W. Thorburn, beg leave to inform, that the business will be continued at the old stand, No 347 N Market street, near the Post Office, Mansion House, and City Hotel.—They have on hand a supply of fresh GARDEN SEEDS, of the best kinds, and intend to keep at all times an assortment. Also, GARDENERS' TOOLS, as spades, shovels, rakes, lines, knives, trowels, saws, &c.; and many FIELD SEEDS, as lucern, clover, and other grasses; mangold wortzel, ruta baga, and the other varieties of turneps; green house Plants, split peas, barley, oat and rice meal, bird seed, &c. A small assortment of horticultural and agricultural books.

Orders for trees and plants, and for American Horticultural and Agricultural Books received and forwarded,

Cut Flowers or Boquets, furnished on short notice. Gentlemen wanting Gardeners, and Gardeners wanting places, may send their applications to the Store. *Albany, March* 8.

Fresh Garden Seeds.

THE subscribers respectfully inform the public that they have entered into partnership in the seed business, and they assure the public that nothing shall be wanting on their part to give the utmost satisfaction to those who may favor them with their patronage It is the intention of the subscribers to erect an elegant Greenhouse in connection with this establishment, where a choice collection of new, rare, and beautiful flowering plants will be supplied from the New-York Botanic Garden upper end of Broadway; and also from the same establishment the best sorts of Flowering shrubs, Garden roses, Hardy perennial plants, Double Dahlias, Chinese Pæonias, Grape Vines, Gooseberries, Currants, Raspberries, Trees for the streets, &c. &c. They have just received from London, a large importation of garden and flower seeds the growth of 1831, such as Cabbage, Cauliflower, Brocoli, Radish, Pease, Grass Seeds, &c. &c.; and also from Glasgow, Hawthorn quicks for Hedges, Red moss, White moss, and White Provence roses. The trade supplied on the most reasonable terms, and all orders by mail or otherwise will be punctually attended to. SMITH & HOGG,

New-York, May 1832. No: 388, Broadway.

IMPRISONMENT FOR DEBT.

I make no pretensions to political sagacity, or wise legislation, and should be very unwilling to introduce any thing like political controversy into the pages of the Farmer; but I consider it quite safe to offer a few remarks on the interesting subject which has been already introduced, and think it may be done without interfering with the avowed objects of the paper. There appears to be a diversity of sentiment relative to the act abolishing imprisonment for debt, and strenuous efforts have been made to have it repealed. Those who are in favor of the existing law, are no doubt actuated by the most benevolent and humane principles, and are capable of exercising their most sound judgment in the case. There are also many worthy and honest creditors, who have been touched in a very vulnerable point with a sense of the attendant evils of the revised law, and have been treated "with sneers of contempt" so repeatedly by those whom they should dare to ask for their just dues, that it is no wonder their indignation should be a little aroused; and I know of some of the most influential men in the community, who, under the operation of this feeling, signed the petition to have this law repealed, who have, upon mature reflection, and an examination of the subject in all its bearings, very much regretted that they did so. The consequences attendant upon the introduction of the abolishment law, are such as might have been anticipated, and it is not to be expected that we should realize the benefits of it the moment it came into operation, for the merchant continued on in the same track, urging his goods upon the honest man and rogue alike, supposing that he who the law had compelled heretofore to pay his just demands, would now do it voluntarily; but they were mistaken. A line is now drawn between the honest man and the dishonest, and public opinion frowns upon one and bestows upon the other a just meed of praise. Under the old law it was not asked whether a man was honest, but whether he had property; that alone was sufficient to give him credit; and honesty, so far as it regarded the mere matter of getting trusted, was an empty name. But now, when time shall have adjusted the preliminaries, the question will be, Is he honest? Honesty and honor will be worth something, and he who possesses them will enjoy superior advantages over him who does not; and the standard of morality will be proportionably raised; and whatever serves to do this is a benefit to society. Our friend, D. F., of Ludlowville, maintains "that the law of imprisonment does not operate cruelly or oppressively upon the unfortunate poor, as alleged by those who are opposed to it. No individual in community receives so safe a passport through life, as the sober, honest, poor man. None so sure of friends, and none in less danger of oppression from any quarter. And I will venture to affirm, that not more than one in a thousand of this class come within the operation of this law."* With regard to the first assertion, I will only appeal to the memory of every individual in society, who has seen the *honest man* dragged from his *wife* and *children*, who stood in need of his daily assistance to procure, not the luxuries, but the necessaries of life, and shut up within the cold walls of a county jail. Such instances are by no means uncommon.

* Genesee Farmer, Vol. 3, p. 70.

2. It is admitted on all hands that 'the sober, honest, poor man" receives a safer passport through life than the *poor* man who is dishonest. But this is not enough. *Honesty* should be entitled to greater privileges still. He who possesses it should be entitled to *credit* when the rogue can find none. 3. I believe there are very few men who are prepared to "affirm" that not more than one in a thousand of the honest part of community come within the operation of this law. Again: "D. F." says that "the mistake that good men make, who are against it, is, by supposing all who are imprisoned to be of this character." I have never conversed upon this subject with a good man who *supposed* any such thing. I will admit that "the law operates upon the lazy, intemperate rogue, and constrains him to pay his honest debts;" and it also operates, most grievously too, upon the poor, honest man. "But far from slow is the advance of crime, profligacy and drunkenness; and if the march of humanity and civilization are such as to render that law odious, why not find ourselves so far ahead as to leave it behind, wholly inoperate for the want of subjects to act upon, or any body so inhuman as to put it in force." If the advance of crime, profligacy and drunkenness are far from being slow, then we most certainly need such a law to put a salutary check to them, as I shall hereafter show. And we might use the same argument, and it would be equally as plausible, against the repeal of the most odious law that ever existed in any code, by saying that if the march of humanity and civilization are such as to render it odious, we ought to find ourselves so far ahead as to leave it behind, remaining in full force, and improve the morals of men so much that no one will be inclined to execute it.

"Let well enough alone," is truly an old maxim, and perhaps in some cases a good one, but I consider it wholly inapplicable in the present case. The pioneers of "Old Genesee," were probably "well enough" before they ever explored these then inhospitable wilds, and underwent every species of hardship and exposure for our benefit; but if they had let "well enough" alone, where should we have been now? If Fulton had let "well enough" alone, where would have been the steam boats that now cover our waters? D. F. seems to doubt the sincerity of that part of community who are in favor of the existing law, and among other things, says that "multitudes of these men, who so abound with the 'milk of human kindness,' use strong drink, and traffic in it, and would get a thousand drunk if it were like to turn a popular election in their favor." Now this is a *bold* assertion, and I can see no just ground for making it; but whether true or false, it matters not. Suppose, for instance, that a man who is in favor of the law abolishing imprisonment for debt, should get a thousand drunk if he could, that does not alter the merits of the case as I can see.

He recommends teaching men, to obey the precepts of the gospel, to obviate the oppressiveness of the old law;—be sure this is good advice, but does not exactly come within the scope of legislation, and as *charity* is one of the fundamental precepts of the *gospel*, would it not be as well for the writer, by way of example, to admit that we advocate the cause in *sincerity*. It must be peculiarly gratifying to the philanthropist, (and Christian I should think,) to reflect, that the poor honest man is no more to be shut up in prison, leaving a family to suffer, for a debt which he is utterly unable to pay. Perhaps I am mistaken in the position that I have taken, but I should at least consider it sound policy to give the new law a fair trial, and see what are its effects. Perhaps it may not answer the wishes of its advocates, nor the intention of its framers,—time will show; and if it does not, let it be *amended*, but not *repealed*. One of its prominent advantages I have not yet alluded to, and that is, it will serve to curtail our *credit* system, than which, none has more impoverished our country. It will also serve as a check to "crime, profligacy and drunkenness;" for under the old law, almost any and every man could obtain credit, and what has been the consequence. The laborer would say, well, I can work so many days this year, and can get so much per day, which will amount to so much; consequently he runs in debt for the amount, and oftentimes, and I may say almost universally, purchases a great many things which his family does not need, and intends, (to use his own term,) "to square all up" at the year's end; but his calculations fail—he made no allowance for rainy days, sickness, misfortune, or doctor's bills. Pay day arrives—he knows not what to do, and there are numerous instances in which he resorts to *crime*, or finds refuge in the bottle. Now there are few, very few, men, in this fruitful land of prosperity, but what are better off without credit than with. It would also be much better for the merchant and mechanic, for whatever renders the condition of the country more flourishing, renders their business better in the same proportion. They might then have the money which is now spent in litigation, and constables, justices, judges and lawyers, would no longer grow fat upon the tears of poverty. E.G.

REDUCED PRICES.

EARTHENWARE, China, Glass, and Looking Glasses. THOMAS J. BARROW & Co. Importers, No. 88 Water Street, New-York, are now receiving their spring patterns of Earthenware, China, &c by last arrivals from Liverpool Their stock comprises every variety in the line, and is surpassed by none in extent or quality. They have made such arrangements in England for the purchase of their goods, as enable them to hold out the strongest inducements to merchants dealing in the line, particularly those buying for *cash*, or *city acceptances*, who will find it greatly to their interest to call, as they are determined to sell at the very lowest prices which it is possible for the article to be put.

THOMAS J. BARROW & CO.,
Importers, 88 Water street, New-York.
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FARM FOR SALE.

THE subscriber offers for sale the Farm on which he now resides, situated on the main road two miles north of the city of Buffalo, Erie co. containing 86 acres of land, not exceeded for richness or fertility by any in the vicinity, having thereon a good two story dwelling house, very convenient; a wood house 50 by 18, one and a half stories high, and calculated for storing grain; a good barn, &c.; a large garden and orchard, containing 100 apple trees, with choice grafted fruit of various kinds. The above Farm will be sold low, and payment be made easy.

SYLVANUS RUSSELL.

For further particulars inquire of Sylvanus Russell on the premises, or of John B. Macy, firm of Smith & Macy, or S. N. Callender, Main-street, Buffalo.

Buffalo, Feb. 26, 1833. mar 1-r4tf4t*